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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,993	04/02/2001	Howard S. Pines	062891.0582	1334

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EXAMINER

WILLIAMS, LAWRENCE B

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/824,993	PINES ET AL.	
	Examiner	Art Unit	
	Lawrence B Williams	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 21, 22, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 8-10, 12-15, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because:
 - a.) Abstract length should be within the range of 50 to 150 words.
 - b.) Examiner suggests applicant place a period after signals in line 23.

Correction is required. See MPEP § 608.01(b).

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of **50 to 150** words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 6, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Downey et al. (US Patent 5, 553,081) in view of Ishizu et al. (US Patent 5,475,710).

(1) With regard to claim 1, Downey discloses in Figs. 2A-C, a method of reducing false detections of signals comprising; receiving a presumed signal; demodulating the presumed signal; comparing a received sequence of bits carried by the presumed access signal to a reference sequence of bits; identifying number of received sequence of bits matching the reference sequence of bits; determining a false detection in response the number falling below a threshold number (col. 5, line 35- col. 6, line 44). Though Downey does not disclose that the signals are access signals, one of ordinary skill in the art could apply this method for detecting valid signals (co. 4, lines 45-61). Downey does not disclose equalization of the presumed signals.

However, Ishizu et al. discloses an adaptive equalizer and receiver whereby he is able to distinguish false detections of signals (col. 32, lines 49-54; col. 33, line 66-col. 34, line 5) after performing equalization on the received signals (col. 6, lines 48-67).

One skilled in the art would have clearly recognized that equalization of signals is a well-known technique introduced in many references. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to apply the method as taught by Ishizu et al. to modify the invention of Downey as a known method of compensating for transmission path characteristics.

(2) With regard to claim 2, Downey et al. also discloses determining an accurate detection in response to the number equaling or exceeding the threshold number (col. 6, lines 20-44).

(3) With regard to claim 3, though Downey et al. nor Ishizu et al. explicitly disclose the presumed signal as a random access channel message of a Global System for Mobile Communications system, Downey does disclose that his invention applies to a wide range of

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transmission media and many types of protocols as well as modulation schemes (col. 4, lines 45-61). Therefore it would be obvious and simple for one skilled in the art to apply this method to a GSM system.

(4) With regard to claim 6, claim 6 inherits all limitations of claim 1 above as claim 1 only discloses the system for performing the method of claim 1, already disclosed by Downey et al. in combination with Ishizu et al. above.

(5) With regard to claim 11, though Downey et al. nor Ishizu et al. explicitly disclose the presumed signal as a random access channel message of a Global System for Mobile Communications system, Downey does disclose that his invention applies to a wide range of transmission media and many types of protocols as well as modulation schemes (col. 4, lines 45-61). Therefore it would be obvious and simple for one skilled in the art to apply this method to a GSM system.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Downey et al. (US Patent 5, 553,081) in combination with Ishizu et al. (US Patent 5,475,710) and further in view of Dehner, Jr. et al. (US Patent 5,473,612).

As noted above, Downey et al. in combination with Ishizu et al. (US Patent 5,475,710) Disclose all limitations of claim 6 above. They do not however disclose the system of further comprising: a decoder operable to decode the presumed signal, the decoder operable to perform a cyclical redundancy code parity check on the received sequence of bits, the decoder operable to identify the presumed signal as the actual access signal in response to a correct parity determination.

However, Jr. et al. discloses in Fig. 2, a method and apparatus for minimizing false detections of packet data wherein he discloses a system comprising a decoder (230) operable to decode the presumed signal, the decoder operable to perform a cyclical redundancy code parity check on the received sequence of bits (234), the decoder operable to identify the presumed signal as an actual signal (236) in response to a correct parity determination (col. 16, lines 23-26).

One skilled in the art would have clearly recognized that a decoder operable to decode a presumed signal, the decoder operable to perform a cyclical redundancy code parity check on the received sequence of bits, the decoder operable to identify a presumed signal as an actual signal in response to a correct parity determination is a well-known technique introduced in many references. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to apply the method as taught by Dehner, Jr. et al. to modify the invention of Over Downey et al. in combination with Ishizu et al. as an added enhancement to minimize false detections of signals in a communication environment (col. 2, lines 20-27).

6. Claims 21, 22, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Downey et al. (US Patent 5, 553,081) in view of Ishizu et al. (US Patent 5,475,710).

(1) With regard to claim 21, Downey et al. discloses in Figs. 2A-c, a system for reducing false detections of signals, comprising: means for receiving a presumed signal (201); means for demodulating the presumed signal (207, 208); means for comparing a received sequence bits carried by the presumed signal to a reference sequence of bits (220); means for identifying number of received sequence of bits matching the reference sequence of bits (221, 223); means

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for allocating physical and logical resources (203) associated with the presumed signal in response to the number equaling or exceeding a threshold number. Though Downey does not disclose that the signals are access signals, one of ordinary skill in the art could apply this method for detecting valid signals (col. 4, lines 45-61). Downey does not explicitly disclose means for performing equalization on the presumed signals.

However, Ishizu et al. discloses in Fig. 34, means for performing equalization (226) on a presumed signal enabling him to distinguish a false detection of a signal (col. 6, lines 48-67; col. 32, lines 49-54; col. 33, line 66-col. 34, line 5).

One skilled in the art would have clearly recognized that means for performing equalization of signals is a well-known technique introduced in many references. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to apply the method as taught by Ishizu et al. to modify the invention of Downey et al. as a known method of compensating for transmission path characteristics.

(2) With regard to claim 22, Downey et al. also discloses system of further comprising: means performing cyclical redundancy code parity check on the presumed access signal; means for discarding the presumed access signal without resource allocation in response to identifying failure in the parity check.

(3) With regard to claim 25, though Downey et al. nor Ishizu et al. explicitly disclose the presumed signal as a random access channel message of a Global System for Mobile Communications system, Downey does disclose that his invention applies to a wide range of transmission media and many types of protocols as well as modulation schemes (col. 4, lines 45-

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61). Therefore it would be obvious and simple for one skilled in the art to apply this method to a GSM system.

(26) With regard to claim 26, claim 26 inherits all limitations of claim 21 above.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Downey et al. (US Patent 5, 553,081) in combination with Ishizu et al. (US Patent 5,475,710) and further in view of Dehner, Jr. et al. (US Patent 5,473,612).

As noted above, Downey et al. in combination with Ishizu et al. disclose all limitations of claim 21 above. They do not however disclose the system of further comprising: means for performing a cyclical redundancy code parity check on the presumed access signal; means for discarding the presumed access signal without resource allocation in response to identifying a failure in the parity check.

However, Dehner, Jr. et al. discloses in Fig. 2, a method and apparatus for minimizing false detections of packet data wherein he discloses a system comprising: means for performing a cyclical redundancy code parity check (234) on the presumed access signal; means for discarding the presumed access signal (236) without resource allocation in response to identifying a failure in the parity check (col. 16, lines 23-26).

One skilled in the art would have clearly recognized means for performing a cyclical redundancy code parity check on the presumed access signal; means for discarding the presumed access signal without resource allocation in response to identifying a failure in the parity check is a well-known technique introduced in many references. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to apply the method as taught by

Dehner, Jr. et al. to modify the invention of over Downey et al. in combination with Ishizu et al. as an added enhancement to minimize false detections of signals in a communication environment (col. 2, lines 20-27).

Allowable Subject Matter

8. Claims 16-20 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a method and system for reducing false detections of access signals. A search of prior art records failed to disclose a method "determining a time of arrival of the presumed access signal; discarding the presumed access signal in response no time of arrival determination; equalizing the presumed access signal in response to determining the time of arrival; comparing each bit of a received sequence of bits of the presumed access signal to a corresponding bit of a reference sequence of bits; generating a positive value for each bit of the received sequence of bits matching its corresponding bit of the reference sequence of bits" along with the remaining limitations of independent claim 16.

10. Claims 4-5, 8-10, 12-15, 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 703-305-6969. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw
August 4, 2004


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